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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/715,031

11/17/2003

LeNoir E. Zaiser

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EXAMINER

DIXON, ANNETTE FREDRICKA

ART UNIT

PAPER NUMBER

3771

MAIL DATE

DELIVERY MODE

12/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/715,031

Applicant(s)

E. ZAISER ET AL.

Examiner

Annette F. Dixon

Art Unit

3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-8 and 10-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8 and 10-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the amendment filed on August 17, 2009. Examiner acknowledges claims 1, 3-8, 10-60 are pending in this application, with claim 54 having been currently amended, and claims 2 and 9 having been cancelled.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5, 6, 8, 12, 13, and 49-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson (5,785,050) and Bickford (3,630,438).

As to Claims 1, 8, 31, 49, and 55, Davidson discloses a gas flow device comprising: an outer body (17), of a first material having an inner cavity (the space between the threaded region 12 and the orifice by which the threaded region 21 is connected) formed therein, the inner cavity bound by an inner wall of the outer body, the inner wall having an orifice (11) extending through the outer body; an inner element (20) within the inner cavity, the inner element being of a material different from the first material and having an external wall with a coupling feature (threads 21 and 22), the coupling feature aligned with the orifice (11); and gas fitting (65) extending through the orifice (11) and engaged with the inner element (20) via the coupling feature (threads, Figure 1). Regarding independent claims 1, 31, and 49 only, with respect to Applicant's

use of the phrase "being of a material different from the first material", it is noted that this recitation within the claims is directed to a process. Since the claim is an apparatus/product claim, patentable weight is only given to the end product. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is in the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, as indicated by the threaded connection 21 between elements outer body (17) and the inner body (20), the valve is made of two separate and distinct parts. Yet Davidson does not expressly disclose the materials of construction are separate. Bickford teaches a valve (105) having two separate parts (115) and (117) wherein the valve portion 117 is seated inside of valve portion 115 and are made of separate materials for the purpose of providing a valve able to accommodate environmental changes (such as thermal expansion) (Column 3, Line 67 thru Column 4, Line 30). Therefore, it would have been obvious to one having ordinary skill in the art to modify the material composition of the valve of Davidson to include different material compositions as taught by Bickford to enable the valve to compensate for environmental changes in temperature.

As to Claims 5, 12, 50, 56, and 57, Davidson discloses the use of threads (21 and 22) as coupling features.

As to Claims 6, 13, and 37, Davidson discloses the use of a shuttle (40) to reduce the pressure within the inner element (Figures 1-3) and a flow meter assembly (60).

As to Claims 54, and 60, Davidson discloses a hose connector fitting (29).

As to Claim 51, Davidson discloses the flow meter (60) is mated with a threaded connection (Figure 1).

As to Claims 52, 53, 58, and 59, Davidson discloses a yoke having a T-handle associated with the outer body (the portion of the device receiving threaded region 12).

4. Claims 7, 14-18, 20, 21, 24-26, 30-33, 35, 36, 38-41, 43-46, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson (5,785,050) and Bickford (3,630,438), as applied to claims 1 and 8, and further in view of Collins et al. (4,064,890).

As to Claims 7, 14, 15, 21, 26, 31, 38, and 44, the modified Davidson as disclosed in claims 1 and 8, discloses a valve having an outer body made of a material different than the inner body, where the outer body is made of a metal and the inner body is made of an elastomeric material. Yet the modified Davidson does not disclose or teach the relationship between the material composition of the valve and the ignition point. Collins teaches a valve having two material compositions of an elastomeric material and a metal, wherein the metal resists ignition and thus has a lower ignition point than the elastomeric material which is more readily ignited, thus having a higher ignition point. Collins teaches the purpose of this material construction is to prevent

secondary reactions from high pressure oxygen passing thru the valve based on the failure of the elastomeric material and while still enabling the valve to retard oxygen flow. Therefore, it would have been obvious to one having ordinary skill in the art to modify the material composition of the modified Davidson to include the ignition points of the material composition, as taught by Collins to prevent secondary reactions while maintaining valve operation.

As to Claims 16, and 39, Davidson discloses a hose connector fitting (29).

As to Claims 17, 32, 40, and 45, Davidson discloses a pressure gauge (15).

As to Claims 18, 33, 41, and 46, Davidson discloses a check valve (30).

As to Claims 20, 24, 29, 35, 43, and 48, Davidson discloses the use of threads (21 and 22) as coupling features.

As to Claims 25, 30, and 36, Davidson discloses the use of a shuttle (40) to reduce the pressure within the inner element (Figures 1-3) and a flow meter assembly (60).

5. Claims 3, 4, 10, 11, 19, 22, 23, 27, 28, 34, 42, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson (5,785,050) and Bickford (3,630,438), as applied to claim 1, 8, 15, 21, 26, 31, 38, and 44, and further in view of Chu (5,860,447).

The modified Davidson discloses a valve having an outer body made of a first and an inner body made of a second material, wherein both the first and second materials are different, yet does not expressly disclose suitable material choices. Chu

teaches a plethora of suitable materials (aluminum, steel, brass, bronze, or strong plastic, Column 4, Lines 38-40 and 64-67) in pressure regulators (valves) which are alternative materials of construction selected based upon the ability of the material to withstand environmental factors such as pressure and friction. Therefore it would have been obvious to modify the material composition of the modified Davidson to include an alternative construction material as taught by Chu to be a material capable of withstanding environmental changes.

Response to Arguments

6. Applicant's arguments, filed August 17, 2009 with respect to the rejection(s) of claim(s) under 35 U.S.C. §103(a) based on Davidson (5,785,050) and Chu (5,860,447) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Davidson (5,785,050) and Bickford (3,630,438), where the modifying reference of Bickford expressly discloses the use of a valve having multiple components in multiple material compositions.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schuler (3,701,363) and McLean (2,743,722) disclose additional

valve assemblies having a housing made of one material and an internal portion made of another material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Annette F. Dixon whose telephone number is (571) 272-3392. The examiner can normally be reached on Monday thru Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Justine R Yu/
Supervisory Patent Examiner, Art Unit 3771

Annette F Dixon
Examiner
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